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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 568-PDD-01-10-US-[6P]

	Application Number	Filed
	10/507,347	January 11, 2006
	First Named Inventor: Thiemo Blank	
	Art Unit: 3731	Examiner: S. A. Simpson

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant /inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [x] attorney or agent of record. Registration number 45,218
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____

/Todd W. Wight/
Signature

Todd W. Wight
Typed or printed name

(714) 641-5100
Telephone number

April 14, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of 1 forms are submitted.

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 14, 2010 Electronic Signature for Kari Lynn Barnes: /Kari Lynn Barnes/

Docket No.: 568-PDD-01-10-US-[6P]
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Thiemo Blank

Application No.: 10/507,347 | Confirmation No.: 3786

Filed: January 11, 2006 | Art Unit: 3731

For: METAL STRUCTURE COMPATIBLE WITH MRI IMAGING, AND METHOD OF MANUFACTURING SUCH A STRUCTURE | Examiner: S. A. Simpson

ARGUMENTS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully submits the following arguments in support of the Pre-Appeal Brief Request for Review filed concurrently herewith.

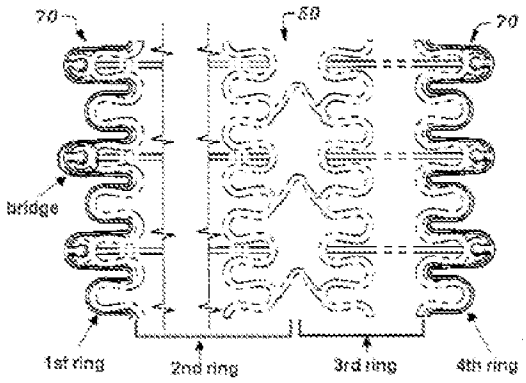
In a final Office Action mailed January 14, 2010 (hereinafter, "Office Action"), claims 25-34, 36-39, 40-43, 44-48, and 50-53 were rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,741,327 to Frantzen (hereinafter, "Frantzen"), while claims 35 and 49 were rejected under 35 U.S.C. 103(a) as being unpatentable over Frantzen in view of WO 99/43378 to Leonhardt, and claims 54-59 were rejected under 35 U.S.C. 103(a) as being unpatentable over Frantzen in view USPN 6,270,524 to Kim and further in view of USPN 6,712,844 to Pacetti.

Applicant previously responded to the outstanding rejections in a response dated October 9, 2009. Specifically, Applicant argued that Frantzen failed to show or describe (1) bridges distributed throughout a length of the tubular structure as the asserted bridge struts are only at the ends of the Frantzen stent, and (2) the second electrical conductivity at least an order of magnitude lower as

asserted was actually the opposite configuration from the claimed invention. Applicant respectfully requests consideration by the Panel of the claim rejections, in view of Applicant's arguments previously submitted and included herein.

Independent claim 25 recites, *inter alia*, "a plurality of expansible rings … each of the rings … having a first electrical conductivity, adjacent rings linked by at least one bridge … each bridge including a portion having a second electrical conductivity at least an order of magnitude lower than the first electrical conductivity."

Independent claim 44 recites, *inter alia*, "a plurality of expansible rings … each of the rings … having a first electrical conductivity … bridges between adjacent rings … said bridges between each ring and its adjacent ring with a portion having a second electrical conductivity at least an order of magnitude lower than the first electrical conductivity."



In response to Applicant's previous arguments, the Office supplied the above annotated FIG. 8 of Frantzen. (Office Action, p. 3.) The Office asserts that Frantzen shows and describes a plurality of expansible rings arranged adjacent one another, with each ring defining at least one bridge (120, 60) having a first electrical conductivity (100, col. 7, lines 48-50), with adjacent rings linked by at least one bridge formed by cooperation between adjacent bridge struts on adjacent rings and each bridge including a portion having a second electrical conductivity (50, col. 7, lines 59-60). (Office Action, p. 4.) Thus, as shown above, the Office asserts that Frantzen marker 100 is a first and fourth claimed ring, while prepped stent 50 provides a second and third claimed ring. Although

admitting that Frantzen fails to disclose a second conductivity an order of magnitude lower, the Office asserts that the marker 100, including its associated bridge strut, is made of a material of higher conductivity material, i.e. gold, than that of the prepped stent 50, and its associated bridge strut. Thus, the Office asserts that Frantzen discloses a bridge including a portion having a second electrical conductivity (the asserted bridge strut of prepped stent 50) lower than the first electrical conductivity of the plurality of expansible rings (the marker 100 and associated asserted bridge strut). The Office concludes that it would have been obvious to one of ordinary skill in the art to discover the optimum value of the relative electrical conductivity of at least an order of magnitude lower. Applicant respectfully disagrees at least because Frantzen fails to disclose "each of the rings ... having a first electrical conductivity," as claimed, and further because the general rule of discovering the optimum value to provide the electrical conductivity of at least an order of magnitude lower is inapplicable in the present case.

Frantzen discloses radiopaque marker elements for attachment to ends of a radially expandable surgical stent. (Frantzen, Abstract.) Frantzen shows and describes a prepped stent 50 including receivers 60 extending from end surfaces 53. (Frantzen, col. 8, ll. 25-31.) Receivers 60 are an integral part of the prepped stent 50, which is made of either stainless steel or nickel titanium alloy. (Frantzen, col. 8, ll. 44-47; col. 1, ll. 52-53.) Frantzen describes an extended marker element 100 with a series of outside tabs 120 including a neck 122 and knob 124 to interface with the rounded space 62 and gap 63 of the receiver 60 of prepped stent 50. (Frantzen, col. 10, ll. 48-51, 57-59.) The extended marker element 100 is made of gold or a gold alloy and "is preferably homogeneous throughout. Specifically, the same metal or metal alloy forms all portions of the element ... along its length and from its surface down to its core." (Frantzen, col. 7, ll. 48-49; col. 8, ll. 9-12.) Thus, Frantzen shows and describes a prepped stent with a series of circumferential elements and connecting axial elements made of the same material. The prepped stent includes integrally formed receivers 60 at each end, also made of the same material. The receivers of the prepped stent couple to tabs 120 on outside marker elements made of a separate material with an asserted higher conductivity than the prepped stent.

As shown and described each of the asserted rings do not have a first electrical conductivity as claimed. Specifically, referring to annotated FIG. 8 provided by the Office, first and fourth asserted rings are of the extended marker element 100 made of gold, while the asserted second and third rings are part of the prepped stent 50 made of a nickel titanium alloy. Thus, each ring does not have a first electrical conductivity as claimed. Instead, the asserted rings have different electrical conductivities.

Moreover, the Office admits that Frantzen fails to disclose the portion having a second electrical conductivity that is at least an order of magnitude lower than the first electrical conductivity. (Office Action, p. 5.) Nevertheless, the Office finds that given the teachings of Frantzen, it would have been obvious to one of ordinary skill in the art to modify the device to include a portion having a second electrical conductivity at least an order of magnitude lower than the first electrical conductivity, as it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

The general rule that discovering an optimum value of a result effective variable involves only routine skill in the art, and thus supports a *prima facie* case of obviousness, is not applicable here. Specifically, when "the parameter optimized was not recognized to be a result-effective variable," an exception is created to this general rule of optimizing a variable. *In re Antonie*, 559 F. 2d 618, 620 (Fed. Cir. 1977).

Frantzen shows and describes radiopaque marker elements for attachment to ends of a radially expandable surgical stent. Each radiopaque marker element is homogeneously formed from a radiopaque material to enhance the visibility of the stent when the stent is viewed with a medical imaging device, such as a fluoroscope. (Frantzen, Abstract.) The Frantzen stent and markers are specifically designed to overcome the deficiency in the art for a radially expandable stent featuring radiopaque markers which can be utilized on stents of different sizes, and not interfere with the expansion of the stent, while providing a clear image on a fluoroscope or other medical imaging device. (Frantzen, col. 2, ll. 21-28.) Frantzen describes stents formed from stainless steel or nickel titanium alloy, while the markers are formed of gold, silver, and similar materials known to exhibit

radiopacity when viewed through a medical imaging device. (Frantzen, col. 1, ll. 52-53; col. 8, ll. 2-8.) Nowhere does Frantzen identify the conductivity of the materials used or any result effected by the conductivity of the identified materials. Thus, discovering an optimum value of a result effective variable, i.e. the conductivity of the chosen material, does not involve only routine skill in the art as asserted by the Office. Accordingly, as the Office admits that Frantzen fails to disclose this limitation, Applicant submits that a *prima facie* case of obviousness is not supported by the mere assertion that it would have been obvious to a person of skill in the art to discover an optimum value.

Therefore, Applicant submits that independent claims 25 and 44 are patentable at least because Frantzen fails to show or described the features of "each of the rings … having a first electrical conductivity," and each bridge including "a portion having a second electrical conductivity at least an order of magnitude lower than the first electrical conductivity."

Regarding claims 26-35, 36-39, 40-43, and 45-59 depending therefrom, without conceding the assertions in the Office Action, Applicant submits that each depends from a patentable independent claim, in view of the above, and is therefore patentable.

In conclusion, Applicant respectfully requests favorable reconsideration and withdrawal of the rejections under 35 U.S.C. § 103, and solicits a Notice of Allowance in due course.

Dated: April 14, 2010

Respectfully submitted,

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